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ABSTRACT

Eleven separate addresses made by the Assistant Secretary of Education for Educational Research and Improvement during the period April-August 1990 comprise this document. Arranged chronologically, it includes two addresses before the American Educational Research Association in April and others as follows: (1) to Javits Grant recipients on May 16-17; (2) before the National Alliance for Business on May 22; (3) before U.S. Department of Energy Education Directors on May 23; (4) at the Seminar on Base Year Findings of the National Education Longitudinal Survey, National Center for Education Statistics, on June 27; (5) "New Deans of Education," an institute sponsored by the American Association of Colleges for Teacher Education, on June 27; (6) before the State Liaisons for the 1990-91 Blue Ribbon Schools Program on July 12; (7) "Minority Teachers: Meeting the Need and Taking the Lead" on July 15; (8) at the Office of Educational Research and Improvement (OERI) Roundtable on Public School Choice on July 19; and (9) before the National Conference of State Legislatures on August 7.
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SELECTED ADDRESSES, SPEECHES, AND REMARKS

OF THE

ASSISTANT SECRETARY
FOR EDUCATIONAL RESEARCH AND IMPROVEMENT

APRIL 17 - AUGUST 7, 1990

(ELEVEN ITEMS)

Christopher T. Cross

ASSISTANT SECRETARY
FOR EDUCATIONAL RESEARCH AND IMPROVEMENT

Office of Educational Research and Improvement OERI)

U.S. Department of Education

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
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ADDRESS FROM THE ASSISTANT SECRETARY FOR
THE OFFICE OF EDUCATIONAL RESEARCH & IMPROVEMENT

Christopher T. Cross
Assistant Secretary
U.S. Department of Education - OERI

AERA

April 17, 1990

Christopher T. Cross

Education research has come a long way. It is no longer regarded as the Rodney Dangerfield of academia. Today, education research gets respect.

And for good reason. In the 1980s, research made a discernable impact on education policy and practice. More than half the 16,000 school districts in the Nation have implemented some form of "effective schools" program. Six of the eight largest urban school districts in the Nation are moving toward school-based management, which grew out of studies showing school autonomy to be associated with school effectiveness.

Those are just two among many examples or reasons why the "market value" of education research has appreciated considerably in the eyes of policymakers in recent years. California's superintendent of instruction, Bill Honig, has been characterized as an education research "junkie." Secretary Cavazos said, after the summit last September, that "The Federal Government will have to dramatically--dramatically--improve its efforts at data collection and measurement."

At the summit, President Bush and the Governors agreed that the Federal Government must help the Nation advance toward its new education goals by supporting "research and development for programs that work; good information on the real performance of students, schools and states; and assistance in replicating successful State and local initiatives."

The top policymakers in America see education research as vital to restructuring schools and advancing toward the national goals. That's why President Bush requested an 83 percent increase for research and statistics for the upcoming fiscal year. That's one reason the Department raised the number of research centers being competed to 18.

Education research does indeed get respect. But recent national and international assessments make one thing clear: American education does not measure up. Our work has not yet translated into adequate results.

That has to change. Research must lead to results--significant gains in learning. We must establish this--student learning--as "due North" on our research compass.

I want to talk today about how we can bring that change about...how the education research community can lead the change and light the way to the restructuring of American education in the 1990s. To do so, I believe that we must turn our attention

to four priorities during the next few years: assessment, motivation, collaboration, and dissemination. I want to talk about each.

First, assessment. Devising better yardsticks for measuring student learning is one of my priorities. Education goals are "useless," President Bush and the Governors have agreed, "unless progress toward meeting them is measured accurately and adequately...."

OERI will try to supply Americans with better feedback on student learning on three general levels.

At the national level, we are working to improve the National Assessment of Educational Progress. The 1990 NAEP will provide State-comparable data on 8th grade mathematics performance across 37 States. The 1992 reading assessment will include longer reading passages; most test items will be aimed at higher-order thinking; and 40 percent of the items will be open-ended. We hope to increase the number of subjects on which NAEP collects data and to shift NAEP's emphasis toward problem solving and authentic tasks in coming years.

Better national assessments are critical. But Americans want to know also how students in the U.S. compare, academically, with the international competition.

We are pursuing several efforts to improve the larger, international picture of America's educational performance. In cooperation with the National Academy of Sciences and the National Science Foundation, we are trying to increase the quantity, quality, predictability, and timeliness of international education data. We are working on a project to compare educational outcomes, attitudes, expectations, contexts, and other features of schooling across some 25 countries (OECD project). And we are involved in the IEA reading literacy study involving some 40 countries and the IAEP mathematics, science, and geography study involving about 20 countries.

International and national data establish the context, the "big picture." But nowhere is feedback on student performance more important than at the State and local levels, where the vital decisions about schooling are made. Just about everyone today agrees that if schools and communities are to figure out how to improve teaching and learning for their children, they must have alternatives to the inadequate multiple-choice tests being used by most schools and States today.

That's why we have high hopes for our new research center on assessment, evaluation, and testing--and why we are funding the center at nearly double the level of all the other centers. The center will, among other things, collect and maintain a database

of "performance assessment" instruments and procedures used by the military, business, government, other countries. These assessment tools and methods will be made available to States and schools, along with technical assistance in how to administer them and use the results. The center will also develop theories, models, or methods of assessment that, we hope, will ultimately help focus instruction on what matters most--on learning to think mathematically, learning to solve problems scientifically, learning to apply historical knowledge, geographic knowledge, and so on.

Assessment is, of course, content specific, and the assessment center will work closely with the "content" research centers--the centers on mathematics, on science, literature, and other disciplines. The assessment center will work also with the research centers on adult literacy and on workforce quality to develop means of assessing adults' "readiness for work"; it will collaborate with the research center on families, communities, and children's learning to devise methods for evaluating young children's "readiness for school."

Reliable, accurate, and useful assessments can help States and communities advance toward the national goals as well as their own education goals. Good assessments are indispensable tools for redesigning American schools. They can focus instruction on what matters most--thinking, applying knowledge,

using it to solve problems. They can "model" effective instruction. And they can pave the way to distinguishing and rewarding effective teaching.

The second priority I want to discuss today is motivation. Particularly student motivation. This is a special issue we are asking each of the 18 research centers to address. But it is an issue that concerns all of us.

Years ago, when I was in school, there was a sign at the front of one of the classrooms above the chalkboard next to the clock. The sign had big letters that read: "Time will pass. Will you?"

Unfortunately, this attitude of "doing-only-what-you-have-to-to-get-by" persists and pervades classrooms across America. Too many students are watching the clock. They're bored. Apathetic. Disengaged.

A week doesn't pass without some new report about how many youngsters drop out of school. But <u>how many more</u> students continue going to school, going through the motions, sitting in classrooms unfazed by the technologies that have become commonplace in American business and industry?

How can we make school <u>matter</u> to students? How can we

"connect" school learning to their lives? How can we change the image of schooling from a "rite of passage" to what it really is: an opportunity to develop our most valuable resource...young people's minds.

We must help parents, educators, and others discover how to motivate all youngsters. And we must provide incentives for teachers to make sure that every student learns. The restructuring of American education will fall flat if its architects and carpenters continue doing business as usual.

We know that schools improve one at a time, each according to its own unique circumstances and conditions. But neither Lincoln High School nor King Elementary nor any other school in America will improve unless its teachers want to improve and its students want to learn.

That is why this question of teacher, student--and parent--motivation is one of the single most important questions we face. Because motivation is a multifaceted issue touching many dimensions of education, we want each center to address it. And we want more scholars--both inside and outside the Federal education research system--to explore it.

The third theme I want to talk about is collaboration. When I arrived at OERI six months ago, I said to OERI staff what I am

saying here today: I said that we must increase the impact of education research on education practice. And that, to do so, we must build a stronger education R&D "team."

But the field or terrain on which the education R&D team plays has changed considerably over the last 20 years. States have assumed a much larger role in education reform; new education R&D organizations have sprung up since the current configuration of national research centers and labs was conceived. ERIC and NDN were born and have grown. Today, nearly half the States have independent policy analysis centers. In the South there is the Southern Regional Education Board. At the national level, we have the Education Commission of the States, the National Governors' Association, the National Conference of State Legislatures. Business groups, corporations, coalitions, foundations--the number and variety of educationally active organizations is off the charts.

The education R&D system needs to reflect that. The education research landscape needs to be surveyed and re-mapped so that we can build upon this new landscape. That's why I am seeking a comprehensive, top-to-bottom study of the entire education research-and-development enterprise. The study, to be conducted by the National Academy of Sciences and the National Research Council, will include a look not only at the Federal education R&D components and how the various parts fit and

interact; it will also examine major activities under way in State and local education agencies, in the private sector, in higher education, and in a range of Federal agencies. The study will help us see how the various R&D components might be restructured and reassembled to operate more efficiently, more effectively, and more productively--as a team.

One thing is obvious even without that study: The education R&D team must be expanded. It must to include other offices in the Department of Education, other agencies in the Federal government, and groups outside the government.

The Department has already enlisted new team members. We are working closely with NSF; the agency's scientists are helping OERI select quality science and mathematics projects for the National Diffusion Network. The Department of the Interior last year supplied the maps, cover design, and money to print 40,000 copies of a recent OERI publication, Helping Your Child Learn Geography.

The Department of Health and Human Services plans to provide money (in 1992 and 1995) for regional lab efforts to help communities implement successful "transitional" programs from preschool to formal schooling. HHS is also investing a total of $700,000 in six OERI research centers. The Department of Labor is putting half a million dollars a year into the adult literacy

center. These contributions mark the first time that Federal agencies outside the Department of Education have become "shareholders" in the Department's centers and labs.

It is just the beginning. In response to orders from President Bush and urgings from others, the Department of Energy, NASA--more than a dozen Federal agencies in all--are expanding their involvement in education; they are increasing everything from internships and scholarships to teacher training and model courses.

The opportunity for collaboration has never been so great. And we want OERI-supported institutions and individuals to capitalize on it. Where interests overlap, where mutual benefits may exist, people ought to be sharing information, exchanging lessons learned, building on each others' successes and avoiding repeating the same mistakes.

To improve the education outcomes of disadvantaged youngsters, for instance, we are asking the regional labs to work with Chapter 1 TACs. We also expect collaboration on this issue among the ERIC clearinghouse on urban education, several NDN projects, the urban superintendents network, and several national research centers.

That's just one example. Science and mathematics, early

childhood, workforce readiness, parent involvement--many issues are being addressed by more than one OERI-supported institution or individual. We believe that two heads are indeed better than one--especially when the combined brainpower is focused on solutions, not on "turf protection" or a narrow view of the problem. That's why we are writing collaboration into our agreement with every regional lab and research center.

Also, we are asking that each research center make practitioners real "partners" in the development and implementation of its research agenda. If education research is to make a difference in education practice, it must address problems that teachers and principals and policymakers face.

That brings me to the fourth priority. Dissemination. Like collaboration, dissemination is integral to research. And we must do a much better job of it.

But dissemination means more than simply "getting information to the people who can use it." It means making sure that information makes sense to the people we hope will use it. It means presenting information as simply as possible--but no simpler. It means thinking of our findings from the users' perspective. Are there problems that are likely to arise during implementation? Are there ways to overcome such obstacles? As Jim Fox of OERI has pointed out, we can increase the likelihood

that findings will be used--by helping users anticipate and overcome obstacles.

We in OERI want to increase the power of education dissemination efforts. We intend to be much more aggressive in getting information to various audiences. We are developing a national dissemination plan that will take advantage of technology, tie into more networks, repackage and target research findings to various audiences. And we are competing a new research center on dissemination and knowledge utilization--a center that should ultimately help all of us amplify the impact of our work.

One way to increase our collective impact is for every one of us to become an "access point" to everyone else in the education research community. At the Federal level, for instance, we want to make it easier for information seekers to locate the appropriate center, clearinghouse, lab, or other resource.

To facilitate that--and to open the lines of communication between research centers and OERI...and among centers, labs, clearinghouses, LEAD centers, NDN people, and others--we are establishing an electronic telecommunications network. The network will provide electronic bulletin boards, electronic mail, document exchange capabilities, and one or more on-line

databases. It will, I hope, increase the flow of information among OERI-supported institutions. Participation, however, is not limited to Federally-supported institutions and individuals. All of you can tap into the network. I hope you will, and I hereby invite you to do so.

This network, the dissemination center, and our dissemination policy will increase the impact of research on practice. But that impact would be much greater if two other changes could be made--changes that are beyond the reach of the Federal government.

One obstacle is that there is no journal dedicated to "spreading the word" about important breakthroughs in education research. There is no education equivalent of the New England Journal of Medicine or the Journal of the American Medical Association. One of my friends whose husband is a physician tells me that patients often bring in articles about findings from the New England Journal of Medicine about new treatments. That puts pressure on him to find out more.

Why don't parents, business people, and others do this? Education research has, as I said, come a long way. But our work does not, as yet, have the stature, prestige, or public credibility of medical research. We need a vehicle or two that can command that level of attention, so that when they print

findings, the popular press reports them. And people listen.

A second obstacle exists in schools of education themselves. Dona Kagan of Clemson University suggested last fall in the Kappan that teacher educators are "the most important consumers and the chief beneficiaries of applied research in teacher preparation." But this associate professor of education says that she has encountered "resistance to research" in "many departments of teacher education."

On a similar note, James Guthrie and others contend that colleges of education are not making the importance of education research evident to our future teachers and principals.

That is not only a shame. It's scandalous. Schools of education ought to be prime movers and major users of education research. They ought to place a premium on applied research...on studies and findings that address the needs and concerns and questions of practitioners.

How can education schools be transformed into places where education research is valued and used? How can other obstacles to the use of research be overcome?

Improving assessment, motivation, collaboration, and dissemination can help. So can one of the most important

developments in the history of American education.

We now have six goals for the educational performance of the American people. Goals that the Nation's top leaders have committed themselves to. I can assure you: that was no small political feat. But now, the real work begins.

How can those goals be reached? Of the hundreds of "natural experiments" underway in States and communities from Chelsea to Los Angeles, from Chicago to Kentucky, which ones will lead to actual gains in student learning?

We need to sort that out. We need to identify successful experiments...determine why they were successful...figure out how to replicate, accelerate, and improve upon the results.

We must figure out how to get better results...how to get all children ready to learn. And how to get all parents involved early.

How can we raise the graduation rate and make sure every diploma signifies higher achievement than American students, as a group, have ever attained in mathematics, science, English, and other important disciplines?

How can we ensure that all adults in this country have the

knowledge and skills needed to participate fully in the work and civic life of their community and this Nation?

How can we make every school a disciplined, drug-free, violence-free place where teaching and learning can thrive?

I believe that the answers must come, in large measure, from us...the education research community. If this Nation is to achieve its goals in education, we are going to have to help Americans discover how to improve teaching and learning in their schools, communities, workplaces, and homes.

The opportunity before us is unprecedented. The goals suggest the direction--and the urgency--of improving educational performance. President Bush and the Governors--and countless other leaders--recognize the vital role of education research.

We have the respect. Now, let's make our work relevant. Let's tie our work, wherever and whenever possible, to one or more of the six national goals and objectives.

Let's go about our work as if the Nation's future depended on it. Because it does.

Thank you.

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COMMENTS FROM THE ASSISTANT SECRETARY FOR THE OFFICE OF EDUCATIONAL RESEARCH & IMPROVEMENT ON "TOWARD A NATIONAL CURRICULUM?"

Christopher T. Cross
Assistant Secretary
U.S. Department of Education - OERI

AERA: "Toward a National Curriculum?"

Christopher T. Cross
Assistant Secretary
Office of Educational Research and Improvement
U.S. Department of Education

Are we headed toward a national curriculum? Several recent developments seem to suggest that we may be headed in this general direction.

For instance, we now have, for the first time in U.S. history, national goals for the education of our people. Goals that focus on educational performance. Goals that were initiated and agreed upon by our highest elected leaders.

On the assessment front, the 20-year-old National Assessment of Educational Progress was expanded this year to permit comparisons of student performance across 37 States. This is the first State-representative sampling of student learning on such a large scale. In 1992, NAEP will permit additional State-comparisons--in reading and in more grade levels.

In the area of curricula, several frameworks have been

issued at the national level, by national groups. Last year the American Association for the Advancement of Science released Project 2061; the National Council of Teachers of Mathematics issued their Evaluation and Curriculum Standards.

These are welcome and, I think, much needed. For the U.S. already has what resembles, at least in some ways, an "informal" national curriculum. Some have called it a "national curriculum by default." They are referring to textbooks.

American schools and teachers rely heavily on textbooks. It is estimated that somewhere between 70 and 90 percent of classroom instruction or course content is determined by textbooks. For many subjects and grades, only a handful of textbooks is available, because the textbook publishing industry is becoming more and more concentrated in the hands of a few companies.

These companies are not the sole arbiters of what goes into textbooks, of course. Content gets worked out through negotiations between publishers and the textbook-selection committees. In the 20-some States where State approval is required before a textbook can be adopted by schools, the State committees who approve or reject textbooks exert enormous influence. Large States in particular influence what is available not only to schools in their own State but also in

other States.

These committees and textbook publishers have, I think, undue influence on what American youngsters study. And as Harriet Tyson-Bernstein and others have pointed out, students' best interests are not always at the top of the agenda during negotiations.

That's a brief and oversimplified view of the process. But my point is that the current system or process for determining the bulk of what American youngsters study is inadequate. And as the National Assessment of Educational Progress has shown, the result--student learning--is inadequate by any measure.

Not that curricula in American schools are solely to blame. But the recent national assessment in U.S. history found that while most American students have some grasp of the basics--the names and dates of key people and events--they have little understanding of implications or relationships between events. This is precisely one of the major criticisms of U.S. history textbooks: that textbooks try to cover or "cram in" too much information, that they attempt to mention everything and fail to make connections explicit, that they fail to develop in-depth understanding of why things happened as they did.

The process of determining what youngsters study should be

much more open and public. The new national goals may be helping to bring that about. A number of States, communities, and individual schools are re-examining, updating, and making more explicit their goals and expectations for students.

Discussion, debate, and curricular guides and frameworks developed at the national level can spur curriculum revision at the State and local levels. That is happening in some places. Project 2061 and the mathematics teachers' Curriculum Standards and Evaluations, for instance, are being used as a basis for discussion in various States and communities.

This is as it should be. Frameworks and recommendations from the Nation's top scholars and educators and experts in these disciplines ought to be examined and debated at the State and local levels. And people in our communities need to be drawn into the debate. The curriculum-making process is, by definition, a political process; the curriculum is a formal public expression of what we want our young to learn. But it needs to be a more democratic process. It ought to take place in full view of the public. The more people that are invited into the process, the more that the community is engaged in the substance of education, the stronger the support for teaching and learning will be.

Again, events at the national level can reflect and model

what needs to happen at the State and local level.

Let me turn briefly to an issue that I believe must be included in our discussion here today. Like the curriculum, it has a huge impact on what students are taught. Student assessment.

Standardized tests have attracted much criticism recently. They have been accused of narrowing the curriculum and trivializing instruction. While some of the charges may be debatable, one thing is clear: today's standardized tests do not supply the information that policymakers, educators, parents, and other decision-makers most want--information on how well students use knowledge, how well they reason, think, and solve problems.

We need better tests that provide such information, and supporting their development is one of my top priorities. I mentioned a moment ago that NAEP is being expanded. We in the Department are also trying to shift NAEP toward more "authentic" tasks, more higher-order thinking and problem solving. The 1992 national reading assessment, for instance, will include longer reading passages; most test items will be aimed at higher-order thinking; 40 percent of the items will be open-ended.

Information from NAEP, however, is by itself not enough to inform State and local decisions. We in OERI and the Department

are looking to the new research center on assessment, evaluation, and testing to make significant headway. The center will, among other things:

o collect and maintain a database of "performance assessment" instruments and procedures used by the military, business, government, other countries

o make these tools available to States and schools, and it will provide technical assistance in administering assessments and using the results

o develop theories, models, or methods of assessment that should ultimately help focus instruction on what matters most--on learning to think mathematically, learning to solve problems scientifically, learning to apply historical knowledge, geographic knowledge, and so on.

Decision-makers at all levels--but especially at the local and individual school levels--must have better feedback on student learning. I see this as a fundamental challenge for the Federally-supported education R&D system. That's why we are funding this center at double the level of all our other research centers.

Reliable, accurate, and useful assessment information can enable State and local decision-makers to make good decisions about what is best for youngsters. That, after all, is what matters most. If that were happening, the current--and I would

add, faint--specter of a "national curriculum" would likely disappear.

In conclusion, while American education may appear to be moving, on one track, in the general direction of a national curriculum--and it is by no means a Federal curriculum--that direction does not lead to that destination. For on another track, American education is moving away from centralization. A number of schools and communities are experimenting with decentralized decision-making, school-based management. Chicago, Dade County, Los Angeles, the State of Kentucky--some of the largest school systems in the U.S. are moving rapidly in this direction.

Policymakers realize that allowing each school to make its own decisions about staffing, budget, and instruction can have a powerful motivating effect. It can unleash creative energy where such energy is needed most: at the school site, in the classroom, and in the surrounding community.

President Bush and the Governors have agreed that flexibility is part of the equation to restructuring American schools. Like other policymakers, they are interested in improving student outcomes; they are not interested in regulating or dictating how those outcomes are achieved.

The curriculum is part of the process, not the product, of education. Thus, I conclude that a national curriculum is not in the offing. Rather, education policy is moving in two different but complementary directions: toward decentralization of the educational process and toward centralization of the result at the State and school district levels.

In summary, I think it is important to see our discussion of a "national curriculum" in these terms:

- using models developed by the Nation's experts as the point of departure for State and local curriculum renewal
- bringing more people into discussing and debating the content of the curriculum at the State and especially the local levels
- developing assessments that furnish the feedback needed to improve teaching and learning for all students.

almost final draft

TALK TO THE JAVITS GRANT RECIPIENTS
May 16, 1990
Christopher T. Cross

I am delighted to be here and to have this opportunity meet with you this morning. The work that you are undertaking through these grants is of vital interest to us in the Department and to the Nation.

As you know, several months ago President Bush and the 50 Governors agreed to six national goals for American education. In the introductory text to those goals, President Bush and the Governors agreed that the goals "are about excellence. Meeting them will require that the performance of our highest achievers be boosted to levels that equal or exceed the performance of the best students anywhere." And "We must work to assure that a significant number of students from all races, ethnic groups, and income levels are among our top performers."

That goes to the heart of the Javits Gifted and Talented Students Act. Improving the educational achievements of our best students...seeking out high-ability students of all ethnic groups and income levels...translating what we learn in educating gifted students into better teaching and learning for all students--that is what this program is all about.

One of the forces we're up against, I think, has to do with attitudes. Low expectations.

A poor high school student from a rural community goes to his counselor at school seeking to apply for a summer program for gifted students. The counselor discourages the student from applying. She tells the student that he is wasting his time, that he is not good enough. Nevertheless, the student applies to the program and is chosen to participate. He turns out to be one of the most successful students in the program. He then goes on to attend a prestigious, private college that he never would have dreamed of attending had it not been for the summer gifted program.

That is a true story. And as many of you know, it is not an unusual story.

Another telling incident occurred when a foundation and a university began working with a large urban school system in an effort to identify high-potential students. School officials were asked for the names of students scoring 95 percent or higher on standardized tests. Well, 90 percent of their students were "disadvantaged." So school officials assured the foundation and university people that few--if any--their students were scoring that high. Then, school officials checked the records. And to their surprise, more than one thousand students, mostly minority

and poor students, were achieving at that high level.

Again, this is not an isolated incident. Low expectations have placed a low ceiling on performance in many American schools.

That has to change. High expectations are vital to high levels of performance, and to reaching the national goals.

All our youngsters have gifts. And we must encourage every one of our youngsters to discover and develop his or her gifts. I see this as central to our task. As educators, parents, and adults, we must encourage youngsters to work hard at learning and to strive for "consistently superior performance."

During three years of studying Olympic and other world-class swimmers, Daniel Chambliss of Hamilton College uncovered some interesting and, I think, useful insights about excellence and how it is achieved.

In the spring 1989 issue of Sociological Theory, Chambliss notes what separates Olympic swimmers from country club swimmers. It is neither talent nor spending more time practicing. "Diver Greg Louganis, who won two Olympic gold medals in 1984, practices only three hours each day--not a long time.... But during each session, he tries to do every dive perfectly."

Chambliss found excellence to result from roughly three things:
o discipline, such as the concentrated effort of Louganis.
o attitude. World-class swimmers tended to view "swimming laps" as a peaceful, challenging, even at times enjoyable activity.
o and technique--improving the kick or the underwater turn, for instance.

Chambliss found that swimmers advanced "to the top ranks" not through "sheer volume" of practice, but "through qualitative jumps: noticeable changes in their techniques, discipline, and attitude, accomplished usually through a change in settings...[a change such as] joining a new team with a new coach, [or] new friends...who work at a higher level."

That has implications, I think, for the Javits program and for these projects. Getting students to work at a higher level is much like getting swimmers--or anyone else--to work at a higher level. Chambliss explains that "...some writers [for instance] always work for three hours each morning, before beginning anything else; a business person may go ahead and make that tough phone call; a job applicant writes one more letter; a runner decides, against the odds, to enter the race; a county commissioner submits a petition to run for Congress; a teenager asks for a date; an actor attends one more audition. Every time a decision comes up, the qualitatively 'correct' choice will be made. The action, in itself, is nothing special; [but] the care

and consistency with which it is made is [special indeed]."

How can we nuture in students this habit of consistently making the qualitatively correct choice? How can we motivate them to persist in giving their best effort to their studies?

Student motivation is one of the cross-cutting themes of the 18 national research centers we in OERI will be funding during the next five years. It is one of the critical questions that must be answered if we are to reach the six national goals by the turn of the century.

I am hoping that your projects also lead to insights about what can be done to motivate students, particularly students whose intellectual promise has gone unnoticed in the past.

Educators, parents, policymakers, business people, and others across the country need to know how to do these things better. I think most everyone agrees that the quality of life in this country tomorrow depends on the job we do in educating all our youngsters today.

This program, these projects address a critical portion of our young people. I wish you good luck in conducting these projects. And I look forward to working with you. Thank you.

Javits Conference
May 17, 1990
Christopher T. Cross

I am delighted to have this opportunity to be here and welcome you this morning to the first national conference--and the first major activity--of the Jacob K. Javits Gifted and Talented Students Program. We in the the Office of Educational Research and Improvement are pleased to be administering this new program.

This program is not, of course, the first Federal effort to improve education for gifted and talented youngsters. Nearly 20 years ago, in a report to Congress, the U.S. Office of Education reported to Congress that, of the school administrators surveyed, 57 percent said they had no gifted and talented students in their schools.

As a result of that report, Congress created the Gifted and Talented Education Program, which launched a number of state and local programs for gifted and talented youngsters. Those State and local programs grew steadily throughout the 1970's; and in 1980, the Gifted and Talented Education Program was folded into the block grant program to States.

It made an impact. I doubt that there are many administrators today who would claim to have no gifted students in their schools.

Still, despite the progress made during the last 15 or so years, there is at least one dimension of gifted and talented education where progress has been inadequate. The Office of Education identified that issue nearly 20 years ago when it stated, in the report I just mentioned, that "Existing services to the gifted

and talented do not reach large and significant subpopulations--

including minorities and disadvantaged."

Improving the educational opportunities and outcomes of high-ability students, especially those from disadvantaged backgrounds, will be critical in the years ahead. If we are to meet the Nation's new education goals by the year 2000, we must develop the potential of all our youngsters. As President Bush and the 50 Governors have stated, "the performance of our highest achievers [must] be boosted to levels that equal or exceed the performance of the best students anywhere." The President and the Governors have agreed that "a significant number of students from all races, ethnic groups, and income levels...[must be] among our top performers."

That, of course, goes to the heart of the Javits Gifted and Talented Students Act.

The Javits Act pays special attention to improving education for high-ability youngsters who are economically disadvantaged, who have limited English language proficiency, and who are handicapped. It calls on the U.S. Department of Education to undertake three major activities on behalf of these students.

The first, a discretionary grants program, has been established to support innovative programs, collaborative efforts, and models for serving disadvantaged students. In the first year, twenty-eight projects were supported. All of the recipients of these awards are here with us today.

Second, the legislation calls on us to establish a national center for research and development. This Center has been awarded to a consortium of universities, led by the University of

Connecticut and including Yale University, the University of Virginia and the University of Georgia. This five-year effort is just getting underway. The Center is the first of its kind in the country and will provide us with much needed research on identification, curricula, and other issues in this field.

Third, OERI is charged by the legislation to provide leadership, to be a "national focal point" in gifted and talented education. Today's conference inaugurates that mandate. These three activities, woven together, promise to expand our understanding of how to improve the educational experiences of high-ability students throughout the Nation.

Our success in this endeavor is, I think, of vital importance to the Nation. There is mounting evidence that our brightest students are not faring well and that they may actually be losing ground.

If we look at the highest level of performance on the most recent National Assessment of Educational Progress, for instance, we see that:

o 17-year-olds' science achievement has fallen since 1969 and "remains well below" the level of 20 years ago. Today, only 7 percent of our 17-year-olds have the knowledge and skills needed to do well in college science courses.

o In mathematics, fewer than 7 percent of 17-year-olds are performing at the highest level (doing algebra and multi-step problem-solving).

o In reading, less than 5 percent--a smaller proportion of our 17-year-olds than ever before--are performing at the highest level.

o As for writing, in the most recent NAEP, only about one out of 100 high school juniors were able to compose a well-organized argument supported by evidence (called an "elaborated" response).

Similarly, the International Assessment of Educational Progress (1988) found small percentages of American 13-year-olds scoring at the top levels in science and mathematics; South Korea, British Columbia, and our other competitors had much larger percentages of top-scoring students.

Now, I will be the first to admit that these tests do not measure all the talents and gifts that we would like to develop in students. Nor do these assessment instruments adequately capture the full richness of performance we want them to. We in OERI are working to improve the National Assessment, to shift it toward authentic tasks--tasks that more nearly resemble real-life performance.

Still, I think these assessment results reinforce what many of us suspect: that we must do a much better job of helping all youngsters discover and develop their gifts. And we must somehow get all youngsters to work hard at learning...to strive for excellence...to strive to attain "consistently superior performance."

I read an article the other day in the spring 1989 issue of Sociological Theory by a professor who studied Olympic and other world-class swimmers for three years, Daniel Chambliss of Hamilton College. "Talent," he concluded, does not, in and of itself, lead to superior performance. Neither does "time spent practicing." Chambliss writes that "Diver Greg Louganis, who won two Olympic gold medals in 1984, practices only three hours each day--not a long time.... But during each session...[Louganis] tries to do every dive perfectly."

Chambliss concluded that excellence in performance is generally a result of at least three things:

o discipline, such as the concentrated effort of Louganis.
o attitude. World-class swimmers tended to view "swimming laps" as a peaceful, challenging, even enjoyable activity.
o and technique was important. Improving the kick or the underwater turn, for instance, made all the difference in performance.

Chambliss found that swimmers advanced "to the top ranks" not through "sheer volume" of practice, but "through qualitative jumps: noticeable changes in their techniques, discipline, and attitude, accomplished usually through a change in settings...[a change such as] joining a new team with a new coach, [or] new friends...who work at a higher level."

That has implications for us. Getting students to work at a higher level is much like getting swimmers--or anyone else--to work at a higher level. As Chambliss explains it, "...some writers always work for three hours each morning, before beginning anything else; a business person may go ahead and make that tough phone call; a job applicant writes one more letter; a runner decides, against the odds, to enter the race; a county commissioner submits a petition to run for Congress; a teenager asks for a date; an actor attends one more audition. Every time a decision comes up, the qualitatively 'correct' choice will be made. The action, in itself, is nothing special; [but] the care and consistency with which it is made is [special indeed]."

How can we nurture in youngsters this habit of consistently making the qualitatively correct choice? How can we motivate them to persist in giving their best effort to their studies?

Student motivation is one of the cross-cutting themes of the 18 national research centers we in OERI will be funding during the next five years. It is one of the critical questions that must

be answered if we are to reach the six national goals by the turn of the century. And I see it as a key question in gifted and talented education.

A first step toward motivating students involves the recognizing of their talents. It's pretty clear to me that we, as a society, must redouble our efforts to seek and develop the gifts of all our youngsters.

One educator did that so successfully that Warner Brothers made a movie about him: Jaime Escalante. I'd like to conclude my remarks today a statement Jaime Escalante made to students...a statement that, I think, has particular relevance for us.

"My advice to...[students everywhere]," he said, "parallels my thoughts on education itself: find the ganas [the dreams, the desire] in your life--something you like, something which captures your imagination, something you can do to help others, to improve the world. Something which makes you dream. Then find a parent or a teacher or a friend--someone with as much ganas as you, someone who knows you can't be stopped, someone who won't let you let yourself down. And know that if you have desire, you have rights too. And one of those rights is the right to workable and understandable educational methods and materials, and a teacher who will match your effort stride for stride. You're the best hope of the future. You're going to make it. All you need do is learn well Dr. Martin Luther King's lesson of the power of a dream, and of holding to a dream. The rest--incredibly, miraculously, and inexorably--will almost take care of itself."

That statement, I think, reflects an attitutde that is useful for educating all youngsters. If we can awaken the dreams of our youngsters, we can awaken in them also the desire to develop

pursue those dreams...and to develop their gifts. For their gifts are their means for pursuing their dreams.

I see this "awakening" as central to our task. These 28 grants, the new research center, and OERI itself can help us discover how to awaken the dreams and desires of gifted and talented youngsters. My hope is that these discoveries and lessons will spur a renaissance in gifted-and-talented education...a renaissance that spreads to regular classrooms and throughout American education.

That can happen, if we work together...if we combine our efforts...if we share our successes and failures...and if we work with other players in the education R&D system...the regional labs, the national education-research centers, the ERIC clearinghouses, the National Diffusion Network.

That is what needs to happen. I look forward to working with you to make it happen. Thank you.

National Alliance of Business; May 22, 1990
Christopher T. Cross

I'm delighted to be here. I see business involvement as critical to reaching the national goals. So do President Bush and the Governors. I'll say more about that--about what you can do--in a minute.

As you know, business efforts in education "took off" in the 1980s.
o In the four years following the release of A Nation at Risk, school-business partnerships tripled.
o Businesses donated computers, pizzas, employees as tutors...some even offered advice on how school management could be improved.
o Surveys show that most corporations in this country are donating money, materials, or time to local schools.
o Yet most CEOs feel that their efforts have had little impact on school performance and student learning.

Why?
o It takes time for education reforms to bear fruit.
o But patience is not enough.
o One lesson of the business efforts of the 80s is that corporate support should not be unconditional
o there need to be strings attached
o insist on demonstrably better results--better school performance, higher levels of student learning.

In the 90s, we have an unprecedented opportunity to insist on results.
o President Bush and the Governors have agreed to national goals for education...goals that are results oriented...goals that aim at higher standards of performance.

o To ensure that all students reach those higher standards (which in itself is a relatively new concept), the President and the Governors have agreed that "our public education system must be fundamentally restructured."

"Restructuring" is a word that is heard in just about every speech on education these days.
o means different things to different people
o But there are common themes.
o Those themes underpin and are woven throughout the national goals. (High expectations for all students...working closely with parents...teaching students to use their minds well.)

The goals provide national momentum--and a clear direction--for restructuring schools.

But the "real work" must be done at the state and especially the community level.

That work--at the local level--isn't being done today; and it's not going to get done, unless there are sea changes in certain attitudes about education.
o Whereas the public and especially parents believe that schools across the Nation definitely need improvement, they believe that their local schools are doing just fine.
o Eight out of 10 school administrators say that schools are doing a "good" or a "very good" job.
o Nine out of 10 teachers rate the qual;ity of their schools "good" or "excellent."
o Even school board presidents rate their local schools "above average," by an 8-to-2 margin.

Yet the National Assessment of Educational Progress (NAEP) tells us that:
o half our juniors in high school cannot do junior high

mathematics

o three-quarters of our 17-year-olds cannot write a decent persuasive letter

o 58 percent of our 17-year-olds read so poorly that, according to ETS, these students "appear to be at risk as they become adults in a society that depends so heavily on the ability to...[construct] meaning from varied forms of written language."

Obviously, we have an "education problem." But somehow, educators and the public see it as "someone else's problem."

If parents and educators are satisfied with the performance of their schools, who is going to change our schools?

If the past decade taught us anything, it is that change comes only when a critical mass of parents, educators, and others who face youngsters day-to-day are committed to improving education for those youngsters.

That's where business comes in. Business leaders can use the national goals to build a critical mass of community support for change in local schools.

I want to talk now about ways you might do that. I want to suggest seven steps that American businesses can take to improve American education in the 90s.

1. Define what people need to know and be able to do in order to enter your company and succeed there.

o Convince CEOs of other large employers of people in your area to do the same.

o Look at the jobs you hire high school graduates (and even college graduates) to do.

o Do an across-the-board analysis, not only of the general

academic skills and knowledge needed, but also the levels of performance required to do those jobs well.

Get together, distill the findings, and communicate the findings to the superintendent, school board members, school principals, the teachers association...to parents--talk to the PTA and parents in your own corporation.
o Talk to the mayor.
o Make your needs known throughout the community.

Some educators will resist this. But some will welcome it, particularly now that the highest elected leaders in the land have agreed to particular goals:

Philadelphia's school superintendent (Constance Clayton) recently proposed that her schools strive to achieve specific, measurable performance goals.

The Council of Great City Schools have adopted the six national education goals. They are 45 large-city school districts that together account for 12 percent of schoolchildren in the U.S.

In Fort Worth, Texas, school superintendent Don Roberts established a business-dominated task force to look at entry-level job requirements at large companies in the area.
o He asked, for instance, what levels of mathematics and reading are needed by secretaries in their companies.
o The schools will use that information to review their courses.
(In exchange, Roberts hopes that business will promise jobs to students who meet those requirements will offer apprenticeships to reward students who do well in school.)

In California, the State Department of Education and the Industry Education Council of California are starting pilot projects in several communities where employers will define the levels of

performance needed to do certain jobs and school will use those standards to document student achievement.
o Bill Honig, the state superintendent, wants educators to be able to tell students, "If you achieve...[a certain] level of performance, you'll get...[a certain] kind of job."

2. Offer students incentives to work hard at school work.

Many American students are bored with school (ask teachers).
o Youngsters invest minimal effort in their studies.
o According to the NAEP, 62 percent--nearly two out of three 17-year-olds--do less than an hour of homework a night.

They see no reason to work hard at schoolwork.
o Only one out of seven employers (15%) looks at high school transcripts of people applying for jobs.

That sends a message to students and to teachers and parents...a message that schoolwork has no connection to "real" work.
o That is exactly opposite of the message we want students to get. And that message must change.
o Businesses must weigh school performance when making hiring decisions.

The national voluntary test being launched by the National Alliance of Business and other groups (Worklink) could help.
o By taking this test, high school students will be able to demonstrate their intellectual abilities to employers across the country.
o This test could motivate students to work hard in school, especially if businesses give students who score high on it "preferred status in hiring," higher starting salaries, and other incentives.
o Personnel offices ought to also look at other education indicators--teacher recommendations, grades, difficulty of

courses, attendance.

These changes would signal that business people "mean business" about schoolwork...that what students do in school matters to employers.

Tightening the link between school work and later employment is critical.

o President Bush and the Governors have agreed on that "Every major American business...[must] be involved in strengthening the connection between education and work."

o OERI is planning to convene a group of business people in September to help us figure out other ways to tighten that link (OERI Business Forum, Amy Peck)

Changing after-graduation employment policies is vital; but it is not enough.

o must change policies regarding part-time employment of high school students.

o The majority of high school students in the United States work part time.

o For instance, two-thirds of our seniors are employed during the school year.

o is considerably less common in Japan, South Korea, and Western Europe.

o may be one reason, certainly only one reason, we are getting trounced in science and mathematics?

Businesses who employ students part time could, and I believe should, put pressure on student workers to do well in school.

o Managers ought to ask to see grade cards

o provide incentives, perhaps, for students to earn good grades...bonuses...first pick of the hours they'll work

o perhaps adopt a "no pass, no work" policy

Isn't it best for business, in the long run, if students realize that schoolwork is their most important work?

Another problem is that many high school students work too many hours. Research shows that, in many cases, allowing students to work more than 15 to 20 hours a week during the school year is a bad idea.

According to the National Assessment of Educational Progress and other studies, students who work more than 15 to 20 hours a week:
o spend less time than their peers on homework
o enroll in easier courses
o earn lower grades
o have lower educational aspirations

Professor Laurence Steinberg and his colleagues at the National Center on Effective Secondary Schools the University of Wisconsin-Madison recently examined the relationship between part-time work and adolescent behavior in a sample of 4,000 15- through 18-year-olds.
o They concluded that working more than 15-20 hours a week "led to...increased drug and alcohol use, decreased closeness to parents, and the development of cynical attitudes toward work itself."

One out of three high school seniors works more than 20 hours a week.
o In California, one out of four seniors works more than 26 hours a week

3. Support staff development

New technologies are seeping into schools

o Today, American schools have one computer for every 25 students (compared to one for every 125 students in 1983)
o Computers can be effective teaching tools.
o But few teachers have been adequately trained how to use them.

School-based management is spreading like wildfire
o Six of the largest school districts in the country are moving toward it
o So is the entire state of Kentucky.
o But few teachers--or principals--have been trained for the new roles and responsibilities that come with school-based decision-making.

Example of what one corporation is doing:
o Last week, Citibank announced a $20 million, 10-year effort that includes training for teachers in Ted Sizer's Coalition of Essential Schools principles...principles that offer ways to restructure schools (principles that emphasize "depth of study" rather than broad/shallow coverage, teaching students to "use their minds well," and "performance assessments")

Opportunities (that can be built upon):

Investing in training for school principals is a strategic investment (principals are being asked to fill various roles and responsibilities for which they were not trained)
o LEAD:
    -Each state has a LEAD program
    -are looking for new partnerships and new funding sources
o President's Principal Training Initiative
    -summer institute
    -apprenticeship (year) with an exemplary principal/mentor

Regional Laboratories: have many staff development and technical assistance programs not only for principals but for teachers

(school-based management is requiring teachers to do things they weren't trained for)

NDN

o funding 80-some projects
o science, mathematics, reading, writing, history, geography, civics, adult literacy, early childhood education, problem-solving and higher-order thinking
o Most involve staff training.

4. Support efforts to involve parents.

o All the research shows that when parents are involved, youngsters learn more.
o US West is investing $10 million over three years in early childhood and parenting programs.
o will build on Missouri's Parents as Teachers program

5. Support legislative and policy initiatives.

o The Minnesota Business Partnership, a coalition of businesses, was instrumental in passing the Nation's first statewide "parent choice" program.
o The California Business Roundtable did a major study of education in the state, made recommendations, and supported legislation to implement them.
o So have other state and local coalitions.

South Carolina's business community fought for passage of the Education Improvement Act of 1984.
o That legislation put business-community representatives on the state subcommittee responsible for overseeing implementation of reforms
o Test scores and the public's perception of schools in South Carolina have risen.
o What's important here is that the business community not only

helped initiate reforms; it played a sustained role in process
o Leads to my sixth point: keep the pressure on

6. We now have six national goals and a deadline for reaching them
o But President Bush and many of the Governors (and staff people) will not be in office through the year 2000
o How can we ensure sustained commitment from state and national leaders to the six education goals?

Our leaders will change. But our commitment to these goals must not.

Improving student learning must be the measure of our efforts. That leads to my seventh and final point.

7. Whatever education improvement efforts you and your corporation undertake, measure the results.
o Measure the difference your efforts make in student learning.
o Take "before and after" snapshots of student performance.

That is one of the issues we hope to examine closely in the OERI Business Forum: techniques for evaluating a program's impact, and techniques for replicating programs that work.

Finally, I want to mention that the Department has two efforts you may be interested in:

Office of Private Sector Initiatives
o has a nationwide network of contacts
o can point to organizations and individuals who may offer technical assistance in getting your efforts off the ground

Educational Partnerships Program

o in OERI (Lois Weinberg)
o competition is underway; closes July 13th
o will make 12-14 awards
o the applying "partnership" must include an LEA and/or IHE and one or more private sector organizations

If the six goals are to be reached, business must get involved, remain involved, and take risks. As Louis Gerstner of RJR Nabisco said, the greatest risk we face is not taking one.

Thank you.

sci jokes

Department of Energy "Education Directors"
May 23, 1990
Christopher T. Cross

I'm delighted to be here. When I arrived at OERI seven months ago, I told the staff that one of my priorities was to work with other Federal agencies in areas of mutual interest.

You have a resource that is desperately needed in schools across the U.S.: scientists, mathematicians, technologists. And you and your labs are addressing issues of utmost importance to American education and America's future...I'm talking, of course, about energy issues.

We in OERI support a network of people and programs that could help you provide schools in your area with access to your scientists and other professionals.

I want to talk about the OERI infrastructure, the array of resources that may be of use to you. I want to encourage you to draw on them.

First, however, I want to just quickly share something that recently crossed my desk...something from a 6th grade teacher.

The teacher pointed out that it is important for us, as educators, to remember that youngsters have their own ideas about science, and about how the world works.

6th graders know, for instance, what fossils are. One 6th grader said that "Fossils are bones that animals are...finished wearing."

"A blizzard," one said, "is when it snows sideways."

During a lesson on the planets, one 6th grader observed that "When people run around and around in circles, we say they are crazy. When planets do it, we say they are orbiting."

Another noted that, "In order to have seasons, we had to get the earth tilted over on its axis. But it has been worth it."

One 6th grader noted that "Gravity is stronger on earth than on the moon because here on earth we have a bigger mess."

Those are from an OERI booklet scheduled for release this summer--a booklet you might be interested in. It's for parents, and it's called "Helping Your Child Learn Science."

I understand that individuals from OERI are here today to tell you details and deadlines of the Eisenhower programs, FIRST programs, and other science and mathematics programs in OERI. My "assignment" is to provide a general overview.

As you know, the imperative to improve science and mathematics education was underscored in February, when President Bush and the Governors announced that "By the year 2000, U.S. students will be first in the world in mathematics and science achievement."

In order to reach that goal, and the other five national education goals, we must have adequate yardsticks for measuring our progress and better ways of teaching and learning these and other "core" subjects. And when we identify a policy or program that works, we've got to "spread the word."

These three general tasks are central to the mission of OERI. Let me talk about each briefly.

First, measuring progress toward the goals requires two kinds of information: statistics and assessment.

Through NCES, we collect a mother lode of statistical data.
o How many teachers, students, and schools are there in the U.S.?
o How many degrees were earned last year in science? Mathematics? Engineering?
o How do those numbers compare with those of a decade ago?

Those are the kinds of questions NCES answers.

NCES also supports national and international assessments of American student learning.

At the national level: NAEP
o tells us, for instance, that 17-year-olds' performance in science is lower today than 20 years ago
o tells us that half of our high school juniors cannot do junior high mathematics
o We are improving NAEP:
    -state-by-state comparisons in mathematics performance of 8th graders
    -including more "performance" items

International
o trying to increase the volume, predictability, timeliness, and quality of comparative and international assessments
o participating in a 25-nation project to compare various features of schooling (attitudes, outcomes, school context)
o gearing up for two international studies in 1991

-IEA reading-literacy study involving some 40 countries
-IAEP assessment of mathematics, science, and geography performance across 20-some countries

States and local communities must have better instruments for assessing student performance
o national research center on assessment
o funded at twice the level of our 20-some other research centers
o will work in tandem with a number of the other centers (which leads to the second area I want to talk about)

Second, we must find better ways of helping youngsters learn mathematics and science, as well as other disciplines. OERI pursues that objective through two channels: by supporting research and by supporting various kinds of projects in schools.

A number of our national research and development centers are working to improve teaching and learning in mathematics and science.
o The National Center for Research in Mathematical Sciences Education has worked to build relationships between research on cognition and instruction and between curriculum and assessment. (Are competing a Center on Mathematics Teaching and Learning.)
o The National Center for Improving Science Education, at The Network in Andover, Massachusetts, has produced a "blueprint" for elementary school science. It looks at what's needed in terms of three things: curriculum, teacher training, and assessment. This center is now working on a similar blueprint for middle school science.

Also:
o The Center for Technology in Education, at Bank Street College in NYC, is studying how advanced technologies can be used to improve instruction in science, particularly astronomy. (That's timely, with the launch of the Hubble Telescope.)
o The Center for the Study of Writing at the University of California, Berkeley, has explored how writing can be used in science instruction.
o The elementary-and-middle-schools research center at Johns Hopkins, the secondary-school-context center at Stanford, the Center for the Study of Learning at the University of Pittsburgh, the research center on teacher education at Michigan State, and several other centers are involved.

10 regional labs
o work with a wide variety of organizations in their region to apply research and improve student learning
o would love to see the labs working with you

Education-improvement projects:

NDN
o supports 80-some education-improvement projects, more than 20 of which are mathematics or science projects
o disseminates information on many more
o encourage you to submit whatever projects you develop to NDN for program-effectiveness approval

Eisenhower
One of the biggest obstacles to improving science and mathematics performance are conditions related to teaching.
o Most secondary school principals say they have a "tough time" finding qualitied individuals to teach chemistry or physics.
o Most elementary teachers take a minimum of college coursework in science and mathematics. Many readily admit that they "feel uncomfortable" teaching these two subjects.

That's why the Eisenhower program is so important.
o We anticipate awarding 40 to 45 Eisenhower grants this year (1990) in the fall.
o Projects under the Eisenhower program must aim to either improve curricula in science and mathematics or strengthen teacher qualifications and skills in these two disciplines.
o must also be of "national significance"
o Last year (1989), we awarded 29 grants averaging $150,000 each.
o two examples:
-A science museum project (in Philadelphia) is developing a statewide network in Pennsylvania that intends to help more than 6,000 elementary teachers learn to use hands-on science activities
-A science resources center (in D.C.) will put "kits" of rocks and minerals, plants, microscopes, chemicals, and electrical currents into the hands of elementary students and teachers. These kits will come with instruction in mathematics, higher-order thinking, and problem solving.
-The National Science Teachers Association is redesigning science instruction so that earth and space science, biology, chemistry, and physics will be taught throughout the secondary grades--beginning in 7th grade and continuing through 12th grade.

The Fund for the Improvement and Reform of Schools and Teaching program awarded about $5.8 million in 1989 to about 52 projects. In 1990, FIRST will award a little more than $6 million to an estimated 80 projects. FIRST awards are made to projects that aim to:
o help at-risk youngsters achieve higher standards
o promote closer ties among teachers, school administrators, families, and the community
o establish closer ties between schools and colleges or universities
o improve teacher certification and professional development
o strengthen school leadership

o provide entry-year assistance to new teachers
o Also, the Family/School Partnership program, under FIRST, supports projects aimed to increase families' involvement in the education of their children.

The Innovation in Education program provides support for "identifying and disseminating innovative educational approaches" particularly, at least in 1990, for projects that:
o introduce underachieving students to higher academic standards, particularly though not exclusively in mathematics and science
o use comprehensive, school-wide approaches for underachieving students
o involve teachers and parents in setting individual performance goals for underachieving students
o provide individual tutors
o provide incentives for underachieving students
o involve business and industry in motivating underachievers to attend college
o We hope to fund a number of innovative projects in addition to those aimed at underachieving students.
o We expect to make roughly 35 (new and continuation) awards through the Innovation in Education program this year.

Want to mention two other programs: the Technology Education program, which supports the development of materials for educational television and radio programing; and the Computer-Based Instuction Program, which supports projects aimed to strengthen and expand computer-based education resources. We expect to make about 5 major technology-education awards about 7 major computer-instruction awards this year.

Third, spreading the word about good programs, research, statistics, and assessment is critical to virtually everything we do.

Dissemination
o central to our agreements with research centers and other institutions we support
o task force
o research center will provide national leadership on dissemination and knowledge use

ERIC
o 16 clearinghouses
o ERIC Clearinghouse for Science, Mathematics, and Environmental Education
-at Ohio State U.
-keeps tabs on instructional materials, teacher education, learning theory, the impact of values on outcomes, research, and other issues related to science and mathematics education

A Special Plea (a special need):

You have a resource that no one else has: scientists.
o The question is, how can those scientists be made accessible to teachers, and students?
o Let me suggest one way (certainly not the only way).

The scientists in your facilities tackle "real scientific problems" daily.
o How can we make those "real scientific problems" and experiments available to teachers and students?
o How might those "problems and experiments" be recast or re-created in the classroom, for students themselves to try to solve?

Students need to learn to use mathematical and scientific knowledge; they need to learn to apply skills that are specific to these disciplines.

An essential--and currently missing--ingredient in science and mathematics education is this: real, meaningful problems for students to solve.

If students are to "learn to think" mathematically and scientifically, teachers must have access to such problems.

How can we help make mathematics and science instruction "problem driven"? How can we close the gap between the cutting-edge research being done in your labs and the learning that's going on in classrooms?

I see that as one of the unique challenges before you.

Let me just conclude by saying:
o OERI wants to work with you
o We want you to draw on our resources
-call the ERIC clearinghouse at Ohio State for information; submit your work to it
-call the science research center for a copy of the "elementary science blueprint"
-call on the education laboratory in your region

Look for areas of mutual interest...areas where teamwork can increase our collective impact on student learning.

Together, our agencies can help schools and communities across the country make a difference.

So let's go to it. Let's go about take this matter of improving mathematics and science performance as if our future depends upon

it. Because it does.

Thank you.

NELS:88 Base-Year Findings (IS/NCES Seminar)
June 27, 1990
Christopher T. Cross

Glad to be here. The National Education Longitudinal Study of 1988, which we call NELS:88, is central to our fulfilling the congressional mandate to report on the "condition of education" in the United States.

Is the third in a series of National Educational Longitudinal studies (NLS-72 and High School & Beyond)
1,052 schools and 24,599 8th graders participated (average of 24 students per school); so did their parents, teachers, and principals.

This data collection represents several "firsts."
o is the first longitudinal data collection to look at 8th graders across the Nation.
o is the first to include a large oversampling of language-minority students...Hispanic and Asian students.
o is the first to examine what happens to students between 8th and 10th grades and is thus the first to look at "early dropouts."

That information can, and I believe will, lead to important insights about what might be done, at least from a policy standpoint, to improve education outcomes for all students, especially for at-risk students.

NELS:88 will provide a wealth of information that will feed into our efforts to track progress toward the national goals.
o information about students' perception of drugs and violence, for instance, in their schools.
o It will enable researchers to examine the relationship between

student outcomes and such things as type of school, type of school program, ability grouping, family characteristics, and a host of other elements in students lives at school and at home.
o By illuminating the nature of these relationships, NELS:88 can provide clues as to what we must do--as policymakers, educators, and parents--to help all students learn to use their minds well.

Let me share just a few of what I see as the highlights from the base-year data collection.

One highlight is a kind of "statistical profile" of student "at-risk-ness." The base-year collection tells how many American 8th graders are "at risk" in certain ways...that is, what percentage of America's 8th graders exhibit one--or some combination--of six at risk factors. How many:
o live with one parent
o live in low-income households
o have parents who dropped out of high school
o have a brother or sister who dropped out
o have limited proficiency with English
o go home to an empty house each day after school (and how long they are left alone unsupervised)

The NELS:88 results show that:
o Nearly ~~More than~~ half (47%) of the Nation's 8th graders have one or more of those six "risk factors."
o One out of five exhibit two or more risk factors.

I'm not going to talk in detail about those six at-risk factors or other NELS:88 findings. Anne Hafner, Jeff Owings, and Jerry West are going to do that.

But I would like to note some of the reasons behind America's low educational performance. Some roadblocks that stand in the way

of reaching the national goals. Roadblocks that appear, from the NELS:88 data, to exist in many America's homes and schools.

First, at home.

The student survey asked "Since the beginning of the school year, how often have you discussed things you've studied in class with either or both of your parents or guardians?"

o The survey was administered in the spring, so we're talking here about six or more months of school.

o Nearly half of the Nation's 8th graders--46 percent--said they had discussed things studied in school only "once or twice" or "not at all" with a parent or guardian during the previous six months.

o We've heard a lot about parent involvement in recent years.

o Talking with youngsters about what they learn in school is one of the most fundamental things that parents can do.

o Shouldn't parents ask youngsters about schoolwork at least weekly...ideally, every day?

o NELS:88 indicates that we have a long way to go.

As for how often parents check on whether homework has been completed, while 44 percent of 8th graders say "often":

o 29 percent said only "sometimes"

o And 26 percent said their parents "rarely" or "never" check to see if their homework is done.

60 percent of 8th graders said their parents "rarely" or "never" limit TV watching.

o That may have something to do with another finding: that 8th graders spend, on average, four times as many hours in front of the TV as on homework (21 hours per week v. 5.5 hours per week).

Second, at school. What are 8th graders' perceptions of school? What are some of the problems they see?

o The American public sees "drug abuse" as the biggest problem schools in their communities face, according to the most recent Kappan/Gallup poll.
o A little over a quarter of 8th graders see drugs and alcohol as "serious" or "moderate" problems at school.
o But more 8th graders see student behavior as a problem.
o For instance, while 24 and 29 percent see drug and alcohol abuse as "serious" or "moderate" problems, 38 percent judge student tardiness and absences as "serious" or "moderate" problems in their schools.
o The same percentage--38 percent--say that class disruptions by other students "get in the way of my learning."
o 75 percent say that other students "often" disrupt class.
o Yet more than one out of four 8th graders said that they themselves are seen by other students as "somewhat" or "very" much of a troublemaker.

There is much evidence in the NELS:88 data to suggest that 8th graders do not take schoolwork seriously. A sizable portion of students regularly show up for class unprepared.
o One out of five 8th graders said they go to class without their homework done "often" or "usually."
o More than one in five (23 percent) said they "often" or "usually" arrive in class without pencil or paper.

A large percentage of 8th graders seem to be unchallenged or disengaged in school. Asked if they "ever feel bored" at school:
o 23 percent responded "about half the time"
o 21 percent said "most of the time."
o In other words, nearly half of America's 8th graders--44 percent--feel bored half or most of the time at school.

Those are a few of the items that I found interesting in the NELS:88 student survey. I know there's lots more in the parent survey, the teacher survey, and the school survey.

I want us to make better us of this data. I want OERI to mine it...to search for clues in it about what might be done to improve student learning. Clues that point to factors we can do something about.

I've mentioned a few highlights that point to variables that can be changed at home and at school...things that we can do something about, I think, as parents and as educators.

To identify more, I have formed a team within OERI to do a detailed analysis of the data from NELS:88...to look at the data's implications...to interpret and disseminate it.

NELS:88 can be useful not only for gauging progress toward the national goals, but for illuminating changes needed in our homes, schools, policies...our very approach to education. Changes that can enable us to reach the goals.

Thank you.

New Deans of Education: An American Association of Colleges for Teacher Education (AACTE)-sponsored Institute
June 27, 1990
Christopher T. Cross

Want to welcome you to the Department.

Was asked to talk about three issues: alternative certification, minority recruitment, and teacher-education research.
o will do that
o then will talk about some of the challenges I see for us...for teacher educators and for OERI

First, alternative certification.

Administration proposed the Alternative Certification for Teachers and Principals Program "to improve the supply of well-qualified...teachers and principals by encouraging and assisting States to develop and implement" their own alternative certification programs.

I personally support alternative certification not only because the President supports it, but also because there is evidence that it can help us address three important issues.

It can be an effective tool for recruiting minorities.
o In New Jersey, for instance, 21 percent of alternative route (or what they call "provisional") teachers are minorities.
o That's double the percentage of minorities currently in classrooms across the State.

A second reason is that alternative certification programs can attract teachers in critical shortage subjects--mathematics, science, foreign languages, and others.
o Alternative certification is a superior "alternative" to

"emergency certification."
o Emergency certification, which is common in many states, allows schools to hire individuals who have little if any college coursework or knowledge of the subject.
o It is the "warm body" approach to staffing classrooms.
o Alternative certification helped New Jersey eliminate emergency certification.
o It could do the same for other states.

A third reason I support alternative certification is that it gives schools and communities greater flexibility, more choices in seeking and securing the most important resource in their education system: teachers and principals.
o Communities ought to be able to exercise every available option in order to attract the best possible candidates into their schools and classrooms.
o Surveys indicate that 8 out of 10 school principals and superintendents would like to have the "alternative certification" option.

We in the Department of Education have sought to support and advance the debate about alternative certification in several ways:
o We held a one-day conference in December that brought together some 350 people--mostly educators, but also policymakers and citizens--from across the country.
o Saul Cooperman (who was the prime mover behind New Jersey's provisional certification program), Emily Feistritzer, and other experts spoke.
o OERI expects to publish a "summary of the proceedings" this summer.

The Department also funded (through the Fund for the Improvement and Reform of Schools and Teaching) a state-by-state analysis of alternative certification programs.

o The study, which was released just last week, found that 33 states "claimed" to be implementing alternatives to their approved college teacher education programs.
o That's about 10 more states than in 1988 and 25 more than 1983, the year when "A Nation at Risk" was issued.
o Still, the study ran up against considerable confusion about the term "alternative certification."

-Several states, for instance, claim that they are not implementing an alternative route, yet they offer programs that look very much like alternative certification programs.

-Other states' descriptions of their so-called "alternative certification" programs more like emergency certification programs.

o Of particular interest may be the fact that colleges and universities have a major responsibility in the alternative certification programs underway in at least 10 states (CA, FL, KY, MD, MISS, NH, NY, PENN, TENN, WV).
o is a good study; I encourage you to get it, look into it

Cannot talk about alternative certification without talking also about the Mid-Career Teacher Training Program.
o Was passed in 1986 but received an appropriation, for the first time, in FY90.
o Purpose: "to encourage institutions of education with schools or departments of education to establish and maintain programs that will provide teacher training to individuals who are moving to a career in education from another occupation."
o 10 grants are expected to be made, to institutions of higher education only; up to $100,000 per grant.
o The competition was announced in the Federal Register in early May

-closing date is July 2.
-awards will be announced by September 30, 1990
-have received about 500 requests for applications.

Minority recruitment.

Department recognizes the need for efforts in this area.
o Over a quarter of America's students are minorities, yet less than 13 percent of America's teachers are.
o That disparity is even wider in certain states and cities
-More than half of California's students are minorities, but only 17 percent of the state's teachers are.
-80 percent of New York City's students are minorities, yet only 27 percent of its teachers are.
o At the national level, there are indications that the gap may widen.

We in the Department want the ethnic diversity of our children to be mirrored in an ethnically diverse teacher force.
o There are many reasons for this (don't want to get into them)
o We've got to pursue this objective more aggressively--not only in recruiting and retaining minority teachers, but in improving the intellectual opportunities and education outcomes of minority youngsters.
-We must expand the pool of minority youngsters who get an excellent precollegiate education, so that more go to college and succeed there.

Many programs in the Department of Education aim to help here...Chapter 1, some of the TRIO programs, and others.

As you may know, the Department has supplemented the contract with the ERIC clearinghouse on teacher education (which AACTE holds). The supplemental contract will support:
o a publication on how to increase minority teacher recruitment and retention
o a national teleconference on:
-the magnitude of the minority teacher shortage
-recruitment and retention of minority teacher candidates

-strategies for replicating model recruitment, retention, and graduation programs

-new strategies and an "action agenda" to increase the supply of minority teachers

-relevant legislative action and national policies

A working group has been formed in the Department to on recruiting minority teachers has been formed in the Department--to develop recommendations for a Federal strategy for bringing more minority individuals into teaching.

o Its first meeting will be held sometime in July, after the special advisor has been appointed.

Teacher education research.

The teacher education research base has been criticized as "extremely thin."

That "thinness" is beginning to change, I think. And the American Association of Colleges for Teacher Education is helping to lead the change (with, among other things, its publication of the book Knowledge Base for the Beginning Teacher).

Our National Center for Research on Teacher Education, at Michigan State University, has made important contributions to the knowledge base over the last five years.

One finding that disturbs me is that most teachers and teacher candidates, including those who majored in the subject they taught, were found to have an inadequate understanding of fundamental ideas within their subjects.

o Most mathematics teacher candidates, for instance, could not create a story problem that would serve as a prompt for students to divide one-and-three-quarters by one-half.

If mathematics is to "connect" with students' lives, if students are to become mathematical problem solvers, mathematics teachers must be able to embed lessons and calculations in problems that "hit home" with their students...problems that pertain to students lives...problems youngsters care about.

As you may know, the Department is in the process of competing a national research center that will provide national leadership on the topic of Learning to Teach.

We expect the center to examine a number of issues:
o how to teach subject matter
o how to teach students from diverse cultural backgrounds
o how students learn and teachers can assess student learning
o how teachers' subject knowledge changes over time
o how case studies, computers, interactive videodiscs, portfolios, and other pedagogies and technologies can be used to develop the knowledge and performance of prospective teachers
o what insights about teacher education can be gained from professional development schools, alternative certification, school-university collaboration, and other newly emerging approaches

We expect this center to be a useful resource for you.
o I hope you will use it.
o And I encourage you to contact the Michigan State center
    -find out what it has done that may help you.
    -Mary Kennedy is the director. (517) 355-9302

I encourage you also to make use of the 8 other research centers we have, and the 17 other centers we are in the process of establishing. Of the 18 new centers, 8 will be tackling issues that have not been addressed head on by the Department's centers in the past. These 8 centers will address:
o Dissemination and Knowledge Utilization

o Adult Literacy
o Education Finance and Productivity
o Families, Communities, and Young Children's Learning
o Cultural Diversity and Second Language Learning
o Education in the Inner Cities
o Organization and Restructuring of Schools
o Teacher Performance Evaluation and Educational Accountability

I should mention the Center on Assessment, Evaluation, and Testing; we are funing this center at twice the level of most of the others
o must have better instruments and procedures for assessing student learning
o must move away from measuring mere factual recall to measuring the qualities and competencies universally desired in American workers, citizens, and workers--thinking, reasoning, use of knowledge, problem solving
o must shift toward performance-based, authentic tasks

cross-cutting themes for all 18 centers:
o motivation
o collaboration
o dissemination

I hope you will draw on them.

And I hope you will encourage prospective teachers to become consumers and users of education research.

There is evidence that, today, they are not.
o In the Phi Delta Kappan last fall, an associate professor of education said she has encountered "resistance to research" in "many departments of teacher education."
o Jim Guthrie and others have said basically the same thing: that the importance of education research is not being made

evident to America's future teachers and principals.

That has to change.

o I believe that if we are to reach the six national goals by the turn of the century, we are going to have to make better use of research.

o Teachers and principals are going to have to "stay tuned" to the research community so that they can implement, or at least experiment themselves, with new findings like question "wait time," "one-minute writings," cooperative learning, using students as tutors, new approaches to assessment.

At the same time, the research community must stay tuned to practitioners.

o Research must address the needs of teachers, principals, parents, students.

o It must be "user friendly"--easy to understand and easy to use.

Researchers must pay more attention to both the substantive needs and the format needs of practitioners.

I hope that we can build bridges between the Nation's education research community and America's schools.

o One place where such bridges can, and I believe must, be built is in our schools of education.

o Schools of education must become prime movers and major users of education research.

I hope yours will be.

o Make your education school a place where professors help students use research to discover better ways of teaching.

o Undertake to graduate teachers who see themselves as lifelong learners--teachers who have acquired the habit of consulting "what research has to say" about this problem or that issue.

But preservice efforts are not enough.
o I hope you will strengthen your institutions' role in updating the knowledge and skills--and improving the performance--of teachers currently in the classroom.
o As communities embrace school-based managment, new educational technologies, and various routes to restructuring--and as the knowledge base about teaching and learning deepens--the need for ongoing, continuing professional development of teachers and principals will grow.

If we are to produce high school graduates who are lifelong learners, graduates who have acquired the ability and the habit of using their minds well, we must provide schools and communities with teachers who are themselves dedicated to lifelong learning and to using their own minds well.

More and better research about teaching and learning will be needed if we are to sort out what works in helping all students achieve at high levels.
o That's the message I would ask you to take with you when you leave here to go to the Hill.
o The key legislative problem that we can do something about is that Congress does not see the value or payoff for supporting education research.
o They don't see education research as a wise investment.
o That's understandable, in light of some of the research that's been done in the past.

But the past is past.
o When I arrived at OERI in October, I told the staff that my priority is to make research make an impact on practice.

The staff has responded. This agency is doing everything in its power to make sure that research:
o addresses the needs of teachers, principals, parents,

policymakers, and others who must use it

- is presented in forms and formats that are readily understood and easy to use

I would emphasize that Congressmen must be persuaded that support for education research is vital <u>not</u> just for your faculty who engage in it, but for improving the performance of America's schools and students.

If you can convey <u>that</u> message, you will have done us all--but most important, America's <u>children</u>--an immense service.

I aim for OERI to work with colleges of education as never before in order to make that happen.

Thank you.

State Liaisons for the 1990-91 Blue Ribbon Schools Program; July 12, 1990; Christopher T. Cross

Thanks for coming and assisting us with this important program. I see the Blue Ribbon Schools Program as an important engine for advancing toward the new national goals. It rewards schools--puts them in the national limelight for their success, for their exemplary performance, for qualities we want to encourage in all schools. And it provides concrete examples, models that other schools across the country can look to in their efforts to achieve excellence.

But the value of this program extends beyond the awards and recognition. A very real benefit of the program begins with the application process, which requires schools to take stock of their performance in certain areas. This process encourages schools to consider certain questions that are fundamental to reaching the national goals.

With regard to the School Completion goal, the nomination form asks about the school's dropout rate, including how that rate compares with other schools having similar demographic characteristics and what improvements have been realized over the last three years. It also asks about policies and practices that facilitate the transition of students into the school; about students' opportunities to "build sustained relationships with counselors, teachers, or other adults"; and about "specific programs, procedures, or instructional strategies" used by the school to identify and assist at-risk and under-achieving students. Easing such transitions and building strong relationships with teachers are essential to drawing students into the life and work of the school.

Regarding the Student Achievement and Citizenship goal, the nomination form asks:

o What improvements have been made in the school's curriculum in English, history, geography, mathematics, and science?
o What "building-level procedures" are used by the school to evaluate its instructional programs?
o How does the school assess and report student achievement, and how do the results compare to those of other schools having similar demographic characteristics?
o What improvements in student outcomes have been made over the past three years?
o What does the school do to "foster the development of sound character, democratic values...and the ability to work in a self-disciplined and purposeful manner"?
o How does the school attempt to promote "good citizenship, community service, and personal responsibility"?

The 1990-91 nomination form gives special emphasis to effective programs in history. This year's National Assessment of Educational Progress (NAEP) results--and world events--underscore the importance of improving student performance in history.

As for the Mathematics and Science goal, the nomination form asks how the school is supporting teacher efforts to grow and learn in their subject-matter areas, particularly in the areas of mathematics and science.

The form also asks questions related to the Safe, Disciplined, Drug-Free Schools goal. It asks about discipline policies, about how the school goes about preventing drug abuse "on and off school premises." It asks about the learning climate--that is, what the school does to create an "orderly, purposeful" environment that is "conducive to learning."

Parent involvement is explicit in the Readiness goal but implicit in the other goals. It is clear to me that schools must

increase parent involvement if we are to reach the national goals. I'm pleased that the nomination form raises this issue. It asks about:

o ways parents are involved with the school.
o how the school communicates student progress to parents.
o strategies the school uses to encourage parents to provide a supportive learning environment at home.
o "parents' role in the school's homework policy."
o "other learning opportunities outside the school" such as summer programs and camps.

If all schools had good answers to these questions, we wouldn't be here. This program wouldn't be needed.

I don't think we'll need to worry about that for awhile. But I think this this program can be a powerful vehicle for improving schools in that it guides each applying school through a thorough self-examination. It gets people asking good questions about the quality of their school. That is a critical first step if schools are to create their own solutions and improvements.

The road to education excellence is never finished. It is an ongoing processes. And the nomination process can launch the quest for excellence.

I know you have worked hard in past years to get as many schools as possible to go through the nomination process. This year I hope you will redouble your efforts. The more schools that apply, the greater the impact of this program, and the better for America's schools and youngsters.

That, in short, is why I hope we can increase the impact of the Blue Ribbon Schools program. I look forward to working with you to do so.

Minority Teachers (didn't use)

"Meeting the Need and Taking the Lead: HBCUs and Teacher Education for the '90s and Beyond"
July 15 or 16 (or both?), 1990

Assignment: An Overview of the Need for Minority Teacher Recruitment, Training, and Retention

As we all know, our teaching force today does not even come close to reflecting the diversity of our student population.
o About 30 percent of school-age youngsters in the U.S. are members of an ethnic minorities
o About half of America's minority students--16 percent--are black.
o But about 10 percent of our teaching force is minority
o 7 percent of America's teachers are black

There are signs that the disparity is growing.
o Only 4 percent of students enrolled in college or univeristy teacher-preparation programs are black
o Of the teachers in America's classrooms today, Black and Hispanic teachers are much more likely than white teachers to say that they plan to leave the classroom in the next 5 years.
o Most Black and Hispanic teachers teach in urban schools, where the obstacles to successful teaching are greatest.
-It's no wonder they're the most dissatisfied.
-Many professions have opened up to minorities in recent years--fields that are more rewarding, financially and psychologically.

There are a number of reasons why we want all our children to be exposed, during the course of their education, to a diversity of teachers.

America's children need to see learning and knowledge as the possession not of one segment of our population but as the province of all our people.

When I think of biology, I think of Mr. Brawner, who in 9th grade sent us into the woods to gather and classify flowers.

When I think of Shakespeare, I think of Mr. Ellis and Dr. Walton, who

We all, I think, associate what we learned in school, especially if we learned it well, with a human face. The teacher who taught us.

More of those faces need to be minorities.

How do we get there?

In simplest terms, we must increase the percentage of minority students who go on to college and succeed there.

According to one estimate, in order to recruit enough minorities to close the gap, 60 percent of all minority college graduates would have to enter teaching (Betsy, Bell and Steinmiller).

Any plan to expand the pool of blacks and other minorities graduating from college hinges on one thing: improving the academic performance of minority youngsters.

Results from the most recent NAEP, which were released last month, show that, in reading, the average Black and Hispanic 12th grader scored at about the same level as the average white 8th grader.

It's even worse for writing. The average Black 12th grader scored nearly as low as the average white 4th grader in writing.

CHRIS--Talking about the NAEP results in this way is tantamount to shock treatment. Personally, I think the more dramatically we can depict the results, the more likely they'll be remembered--and acted upon. But whether you want to use these findings in this forum is entirely up to you. It may not be quite what they want to hear.

It shows that whereas half of white 17-year-olds (11th graders) analyzed data successfully and understood basic principals of the physical sciences, only 12 percent of black 17-year-olds did. This is the level necessary, according to ETS, to "benefit substantially from specialized on the job training" and "for informed participation in the nation's civic affairs."

This performance gap was evident also in mathematics.

I wasn't asked here today to talk about the reasons for the performance gap.

o I think it has to do with the fact that minority high school students are less likely to be taking the most challenging courses--college-prep and advanced placement, science and mathematics courses.

o They're more likely to be tracked into slower, remedial courses.

o They're likely to perform below their white age-mates as early as 4th grade, the first grade in which NAEP is administered.

Many enter school unprepared to learn. That has to change. We must help parents do things that promote the development of their children from the early years on.

CHRIS: WANT ME TO INSERT SOME things we know that all parents ought to be doing with their school-age children (such as "discussing what they learned in school on a regular basis") and cite NELS:88 to show that many parents are not doing that?

We have to help parents early, if we are to close the performance gap. And we've got to close the performance gap in order to close the minority teacher gap.

To close the performance gap, we in OERI are asking the 10 regional education laboratories to channel more of their efforts toward improving educational outcomes for at-risk children.
o We are asking the 10 regional labs to redouble their efforts, within their regions, to increase the proportion of youngsters who graduate from high school prepared for success in America's colleges and universities and workplaces.
o We also want the labs to help sustain the gains realized through Head Start--sustain those gains into the elementary and secondary grades.

-HHS will be supporting the labs' efforts to help communities implement successful "transitional" programs from preschool to elementary school.

We in OERI have a number of other resources I hope you will draw on:

Research centers

o Center for Research on Effective Schooling for Disadvantaged Students

o Education in the Inner Cities
-We expect it to give special attention to the needs of minority students
-Research should help answer questions such as:
-how to recruit and train teachers for inner cities
-how to support them and provide incentives for them to remain in inner city schools

ERIC Clearinghouses
o one on urban education, at the Institute for Urban and Minority Education at Teachers College.
o one on community colleges at UCLA. (Community colleges, as we all know, can be fertile grounds for recruiting minorities into 4-year programs.)

To close the minority teacher gap:
Our contract with the ERIC clearinghouse on teacher education has been supplemented to support:
o a publication on how to increase minority teacher recruitment and retention
o a national teleconference on:
-the magnitude of the minority teacher shortage
-recruitment and retention of minority teacher candidates
-strategies for replicating model recruitment, retention, and graduation programs
-new strategies and an "action agenda" to increase the supply of minority teachers
-relevant legislative action and national policies

Let me conclude with a special plea.

Historically black colleges and universities are major producers of America's black teachers.
o One third of prospective black teachers are educated at HBCUs.

We in OERI want to work more closely with you in a concerted, coordinated effort to close the performance and minority teacher gaps.

This year we in OERI are establishing 18 new R&D centers.

o big decisions; five-year contracts

Two cross cutting themes:
o motivation: How can we motivate all youngsters to work hard at learning?
o dissemination: How can we provide all educators, parents, policymakers, and others with the information they need to restructure their schools?

We need your assistance and input if these questions are to lead to answers. And to action.

I want our research centers--as well as our labs, clearinghouses, and other resources--to work more closely with your colleges and universities.

Together, we can improve the opportunities for minority youngsters in America.

Increasing the number of minority teachers in America is one route, and important route, to that end.

I look forward to your ideas, input, and assistance in reaching it.

Thank you.

Remarks by

Christopher T. Cross

Assistant Secretary for Educational Research

to the

OERI Roundtable on Public School Choice

The Ramada Renaissance Tech World Hotel

Meeting Room #5, Washington, DC

July 19, 1990, 8:45am

I want to welcome the members of the Roundtable back to Washington. I had hoped to meet with you at the first meeting back in March but I was asked by the Secretary to attend the World Conference in Education for All in Thailand. As it turns out, instead of telling you about the genesis of this important project, I have the opportunity this morning to congratuate you on your work to date and to encourage you to be candid during today and tomorrow's Roundtable discussions.

When I reviewed the outline (blue notebook) based on your March, April, and May meetings, I realized how seriously you have taken your charge. This group was formed so that OERI could provide education decisionmakers with information on the state of the art of managing public school choice.

This outline takes a giant step towards that. I know it didn't just materialize. Nelson, Amy, and Charlie have told me of how productive your meetings have been. I know that some Roundtable members have drafted white papers to spark group discussions, and that nearly all of your have filled out surveys on student assignment procedures, finance and transportation issues. And many of you have fulfilled our request for written descriptions of facets of your school choice programs. I knew that membership on this Roundtable would entail some work as well as time. I hope that we have not asked too much of you.

It is only because of your willingness to participate in the meetings and to do the interim written work that this project has been able to progress to this point. I thank you for your efforts and I congratulate you on the quality of your work thus far.

Now I want to comment briefly on the outline, on some of the points (certainly not all of them) that from my perspective seem crucial to this issue and publication.

In the "Developing Choices, Creating Distinctive Schools" chapter I was pleased to notice the emphasis given to diversifying the educational system. No longer can America strive for the "one best system." Choice is one important means of leveraging school

change, of forcing the system to recognize that students have different learning styles and teachers have different teaching styles.

The fairness of the Roundtable members' approach to "Student Assignment" is evident in the detailed explanations of how to "control" choice. Your intent to enhance racial and socio-economic integration through choice is clear. That you have and can explain the formal, objective policies necessary to guide the student assignment process is proof that fair methods can be devised for providing to all families the means of getting one of their top choices.

The chapter on "Transportation Systems" provides a wealth of concrete evidence that getting children to schools of their choice is not the insurmountable problem choice opponents make it out to be. In the Roundtable's experienced voice, you say it's complicated but doable, and then proceed to explain <u>how</u> it can be done.

I found myself focusing on the diversity of outreach efforts cited in the "Information Collection and Outreach Efforts" chapter. It is such new territory for public schools to be in; it's exciting to consider the possibilities. Once again, the Roundtable's concern for fairness is shown in this chapter's warning and explanation that limiting outreach can restrict

access to choice.

When I came to the chapter on the "Costs and the Financing of Public School Choice Programs," I'll admit I braced myself. In this era of tight budgets, and given the Department's long standing position on education spending, I was heartened to see the clear explanation by the Roundtable that costs can be separated into those required to establish the choice system and those used to improve schools. It's based on your experience, it's candid, and it makes sense to educators as well as politicians.

Having envisioned this activity as mostly the nuts and bolts of public school choice, it was an unexpected and pleasant surprise to read the outline for the chapter on "Incentives or Results of Choice." I think it wraps up all the other practical information with a sense of purpose, the reasons to establish public school choice programs. They aren't philosophical, they're pragmatic. They speak to educators, parents and citizens who want to improve public education in America.

Anne, you have quite a task ahead of you. But the members of the Roundtable have gathered to go over this outline before you start writing.

Remember that it was your experience with and knowledge of public

school choice programs that led me to ask each of you to be a member of this roundtable. In return I expect you to contribute your ideas, to voice your opinions, to make sure that we have all the information we need to make this publication speak to practitioners. We also want your suggestions for future activities for the Roundtable and other OERI efforts dealing with public school choice. Although OERI's budget for the coming fiscal year is an unknown, I am hopeful that we will be able to continue with activities on this very important topic.

I want to again thank you for taking the time to be a part of the Roundtable. We appreciate the hard work you have given and will give to this effort.

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NATIONAL CONFERENCE OF STATE LEGISLATURES
NASHVILLE, TENNESSEE
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Good morning.
We spend a lot of time talking about the bad news in American education. Perhaps too much time.

But there is good news, too, and this meeting is part of it. For all of us who care deeply about improving schools and learning, the good news is that the subject has been elevated to the top of the political agenda. You spent a full day on Sunday focused on the national education goals, and your weeklong program is packed with education meetings. Last week I was with the governors in Mobile, and much of their time was devoted to education. The increased attention to schools and schoolchildren by politicians is a wonderful development. Although we may disagree on solutions, the education reform effort has become an inclusive political movement of the best kind.

I appreciate the amount of effort each of you spend in your own states wrestling over money for education. To some of you I'm sure it must seem to be a never ending struggle, particularly those of you facing court battles over the inequity between rich and poor districts.

But you are to be congratulated. As the reform era gathered steam since the 1983 publication of "A Nation at Risk," you responded. States raised graduation standards, enhancing the value of a high school degree. Reading scores increased. Teachers salaries were raised. You enacted tough new laws that do not tolerate drugs in or near the school house. And you raised more money for schools.

As you know well, the federal government's role in education is limited. The Education Department awards no degrees. It certifies no teachers. It makes no decisions on textbooks. We have no football team and no cheerleaders. (Often we don't even have fans.)

It is America's states and communities that educate children.

I head the agency that oversees the government's education research and statistics gathering. Mine is an agency that provides information, not money. Terry Hartle can speak with more authority on what is likely to happen on the Hill this year,

but it seems clear to me that Congress will be putting a bit more money into education, particularly in Chapter One programs and pre-school programs such as Head Start.

However, even if all of us had an unlimited checkbook, I do not believe it would fix the schools. And they are indeed broken. Most of our students aren't learning what they need to know. They certainly don't appear to be learning as much as children in other developed nations. We need change on a large scale. As we face the 21st Century, we can no longer afford uneducated and undereducated Americans.

My job sometimes offers me a frightening picture of America's schools and students. But it also produces some answers and hope for the future.

Two years ago, we undertook a massive study of the nation's eighth graders. We call the study NELS:88, which, in typical bureaucratic fashion, stands for National Education Longitudinal Study of 1988. As a longitudinal study, we will go back to this same group every two years as they move through and out of our schools.

We surveyed a nationally representative sample of 25,000 eighth graders, 23,000 of their parents, 5,200 of their teachers, and the principals of the 1,000 schools they attended. We asked the students about their lives in school and out of it. Were they bored in the classroom or engaged in learning? Did they feel safe? Were they going on to college or were they likely to drop out? What did they do after school? We looked at their grades and test scores. We looked at their family's income, their race and whether they lived in cities, suburbs or rural areas. We looked at the size of the schools they attended.

The results offer us one of the most detailed portraits of American adolescents ever produced. While this picture is discomforting, it offers us a better understanding of where we are and where we should go. Today, I'd like to share some of this picture with you. It is worth thinking about. After all, most of these students will be eligible to vote in 1992.

In the classroom, these eighth graders are often bored. They are not engaged in higher order learning, and they don't take challenging courses. A majority of those who plan to continue their education beyond high school do not take college preparatory classes.

Too many of them are in schools that are too big, too impersonal. They rarely, if ever, get advice from guidance counselors or teachers. Too many of them are shunted onto tracks with low expectations and rarely get off. Those on these bottom tracks, children who are more frequently black and Hispanic,

routinely get the least experienced teachers.

We worry about drugs and crime in their schools. The students are far more bothered by the disruptive behavior of their peers.

They are assigned little homework and they do even less. Few of them have an outside reading interest. They spend four times as much time watching television as doing homework. They spend too much time after school unsupervised, and the more time they spend alone, the worse their grades. Their parents seldom ask them about school and check their homework even less frequently. The parents, particularly those of the children who need the most help in school, seem to have the least contact with the teachers, principals and other staff.

The litany of problems goes much deeper, each buttressed by mounds of statistics. I'm not going to recite the numbers. If I take my time telling you, for example, that these children spend 21 hours a week watching television, but less than 6 hours on homework and less than 2 on outside reading, your eyes would soon glaze over. In the back of the room there is a copy of the survey for each of you who wants one.

Instead, right now I'd like to focus on the stark difference between what school days for young adolescents should be like and the reality of school life for most of America's eighth graders.

The research tells us, and the best practice confirms, just how important it is for adolescents to attend schools that provide a climate for intellectual development. We know that youngsters in this awkward age between the playground and the freeway need stable and meaningful relationships with adults and other students. We know that we must hold high expectations of them, and they must develop high expectations of themselves. We know they will do better if their parents are involved in their schools and their school work. We know that it is easy for them to become disengaged and lost in large, impersonal schools.

But what comes through loud and clear from the NELS data is that we are not doing what we know works. The basic communication on which all this is based is not taking place. It is not happening at home. It is not happening at school. And it is not happening in the real world of jobs and money.

Let's start at home. All of us must make sure that students understand why school is important, why they must work hard or pay a heavy price for it later in life. Much of that understanding should come from their parents. Schools alone cannot educate children, particularly if those children see disinterest about what they do in school from their parents. If we want children to have high expecations about learning, then all of us -- especially parents -- must regularly send those

signals.

But those messages are not being sent, and even when they are, they often are not being received. The level of parental involvement both with their children and their children's schools is frighteningly low.

Although nearly 80 percent of the parents of eighth graders say they regularly talk with their children about school, that comes as news to many of those children. From the students point of view, 43 percent say they have had such discussions with their parents only twice or less. When it comes to actually having discussed what goes on in class, half of the students report two or fewer parental discussions.

Education research regularly confirms the importance of homework. Most of us here know that and most of us still do it. But slightly more than a quarter of American eighth graders say their parents rarely or never check their homework. And nearly six parents out of 10 say they rarely or never help their child with homework.

Those of us who are parents of teenagers understand how difficult communication can be, but it is essential.

We must get the parents more involved.

Parental involvement does not come easy; the schools must work to ensure it. According to NELS, only half of eighth grade parents had attended a meeting at school. Fewer than three in 10 had visited their children's classes.

But let's not blame this lack of essential communication solely on parents. The schools are not reaching out to parents enough either. Remember that the NELS survey was taken in the spring of the year, but nearly two thirds of parents said they had never been contacted by officials at their child's eighth grade school about the student's academic program.

Of course, there are adults other than parents who can talk to students, helping them along, making sure they understand the importance of this expensive exercise we call school. Guidance counselors, for example. But the NELS data show that six in 10 of our eighth graders had not discussed even the selection of their courses with a guidance counselor, and nearly the same proportion had not discussed course selection with any of their teachers.

We have to make sure schools are not so big that youngsters get lost. Each child should be a name and a face, not a number and a file folder. Every student needs to be known well by at least one adult. We need to make these middle schools smaller, or at least we need to make them seem smaller and more personal. Again, it is

communication and feeling that they can talk to someone. Our work has found that students who drop out invariably complain that they left because they felt that the principal and teachers weren't interested in them.

I can't tell you exactly the right size school. The research isn't there. The Carnegie Corporation has recommended middle schools of 200 to 300 students. Others have suggested a range of 300 to 500. Whatever the optimal size turns out to be, many of our eighth graders are in schools far bigger. Nearly four in 10 of them have at least 800 classmates, and approximately half are in schools of more than 600.

You don't necessarily have to build more schools. You can create schools within schools. The number of classrooms matters far less than building organizations that enable children to have stable relationships with their peers and with adults.

It is not hard to believe that it is easier -- not easy but easier -- to motivate students and communicate with them and their parents if the numbers are more manageable.

We must expect that all students can learn, and at high levels. (That, by the way, is what your colleagues in the Kentucky General Assembly have just written into law.) If we have low expectations of them, what can we expect them to have of themselves? For some time our research work has questioned the effectiveness of tracking students into ability groups. Those on the low track rarely move up. As most of you know, at their meeting last week in Mobile, the governors recommended the elimination of ability grouping and tracking in elementary and secondary schools.

By keeping students on remedial tracks, schools seldom provide them the skills that allow them to get onto to higher tracks. Consider, for the moment, mathematics. Our NELS survey shows that eighth graders taking algebra or advanced math are nearly five times as likely to be proficient at higher level problem solving than those students in regular math classes. But in our public and our Catholic schools only 31 percent of eighth graders take algebra or advanced math. Contrast that to our independent private schools where the comparable figure is 70 percent. Our data show that even "low math ability" children can take algebra or advanced math and benefit.

Raise our expectations. One of the national educational goals adopted by the governors and President Bush earlier this year is to have American students first internationally in math and science by the year 2000. If we are to have any hope of achieving that, a necessary first step is to get significantly more eighth graders enrolled in algebra or advanced math.

But not only must our expectations of the students increase, we must motivate them to work hard at learning. Frankly, if they don't take it seriously, school becomes a sham. The data show that 47 percent of our eighth graders are bored at least HALF of the time they are in school. What happened to the academic motivation of American students? Clearly, students need to become far more productive than they are. To that end, my office is bringing together a diverse group of experts in early November to consider what needs to be done to motivate students.

We must offer new methods to teachers. We must make sure those who teach these middle years understand young adolescents and are specifically trained to teach them. Remember how difficult these early adolescent years are. They are too old for day care, and too young to drive; old enough to be alone but in need of adult advice.

We also need better communication at our own level, those of us who get called "policy makers." We need to better understand whom we are referring to when we talk about those kids we now call "at risk" of dropping out or of education failure.

The NELS data give us a fresh look at these at risk students -- who they are, where they are and how they are doing. We looked at six categories of risk: those students in single parent families, those with family income under $15,000, those home alone more than three hours a day, those whose parents have no high school diploma, those whose brother or sister dropped out of school and those who have limited English skills.

I am sorry to say the survey was not designed to also look at those students at risk because of their physical or mental disabilities.

Slightly more than half of America's 3 million eighth graders have none of the six risk factors we examined. Slightly more than one-quarter have at least one. But one in five have at least two risk factors, a ratio that translates into 600,000 eighth graders who are in serious risk of educational catastrophe. We know now from the data that these students with two or more risk factors are six times as likely to expect not to graduate from high school. We know they are three times as likely to score in the bottom 25 percent on the NELS cognitive test. We know they are twice as likely to have grades in the bottom quartile and we know they are twice as likely to have high absenteeism rates.

There is no single solution for dealing with children at risk. But the first obvious step is to identify these students and pay special attention to them.

And our communities -- all of us — must make sure that our schools work and are organized to ensure that our students learn

and not just set up for the convenience of adults. Even so, we all realize that the days of mothers being home waiting for their childrens' return from school are long gone. Of our eighth graders, 31 percent say their mother is rarely or never home when they arrive. Less than half say she usually is home. One in five usually return to an empty home.

Regardless of who is there, the amount of time they are spending alone and unsupervised is a serious problem. More than one quarter of our eighth graders spend more than two hours alone every afternoon. More than half spend at least one unsupervised hour. It doesn't matter who they are -- sons of lawyers or daughters of truck drivers -- their schooling suffers as a result. What NELS tells us is that grades drop as daily unsupervised time exceeds one hour.

This suggests rather plainly that communities need to provide far more supervised quality activities after school. Communities have a variety of options, many of which are being successfully employed around the country. They can keep schools open into the evening while offering a range of activities, from athletics to clubs to remedial classes. They could use public libraries, which are too often unconnected to the world of schools. They could provide additional recreational activities. They could even provide students with opportunities to engage in supervised volunteer work after school.

Again, it is communication and stable relationships with adults that can provide some positive direction.

But its not just parents and school officials who send signals, it is employers also. In our jobs, we all deal with incentives to motivate our employees and colleagues. But when was the last time you ever heard of an employer asking to see a high-school transcript before hiring someone? Or when did you hear of a company that paid entry-level employees more because they had higher grades? If business is serious about education reform, and I'm convinced that it is, then that's one place it can start communicating incentives to students.

I'd like you to consider what a school should be like. I hope it's a vision that we share, and one that we can make a reality. Let's think about it, if you will, through the eyes of an eighth grader, a 13-year-old whose hormones often are in charge. When he or she gets to this ideal school, there is a principal who knows his or her name and what they are involved in. He or she knows well the other students, and they all know the rules. Classes are challenging and hard work is expected. When it is not forthcoming, parents are called, and they, too, know what is expected of them. Remedial help is applied when it is needed, not after failure has occurred. After school, there are activities to choose from; there are alternatives to "hanging out."

The NELS survey is rich with implications for all of us. We will be mining it for some time. But it is only a baseline. We went back to this same sample of 25,000 this past spring. Most of them were then in 10th grade, some had dropped out. We will continue every two years to follow these children as they turn into young adults, college students and become part of our work force or part of our burden of unemployed. We will continue to keep you and the educators within your states apprised of what we learn.

While surveys are useful, we are working hard to make sure that the necessary work gets done to translate what we learn through them and our research efforts into better schools. Last month, my department began an expanded program of working with states to provide them with better information for their efforts to restructure their schools. It is clear to most of us who care about school reform that success will come about only through sustained commitment. I can assure you that this administration and my agency is committed to this effort for the long haul.

To begin convincing you of that, at the back of the room are two one-page research briefs designed for you, based on the NELS data. One is about the state of parental involvement. The other is about the need for restructuring our schools.

In addition, we have four new "policy perspectives" of pamphlet size that are being released here at NCSL. For each one, there is also a one-page executive summary. They are also available in the back of the room or at the OERI booth in the exhibit hall. These papers are on:

* education accountability and the implications for state and local policy makers by Michael Kirst of Stanford;
* increasing achievement for at-risk students by Johns Hopkins University professors James McPartland and Robert Slavin;
* workplace competencies and the need to improve employment readiness by Paul Barton and Irwin Kirsch of the Educational Testing Service;

and one on

* excellence in early childhood education by Lynn Kagan of Yale.

I think you will find them helpful, and I urge you to take a look at them.

I'm sure you may have differences from time to time over the scope of federal support for education. But I hope, however, you will find the information and research we provide to you and your constituents to be of value and of special use in the policy making process.

Thank you very much.